

# Piezo resistive Accelerometer

**BST 28C** Triaxial

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## FEATURES

- Dummy-WorldSID
- Compliant SAE J211
- DC MEMS PR Accelerometer
- High Shock
- Low Mass

## APPLICATION

- Crash Tests
- Shock Tests

## DESCRIPTION

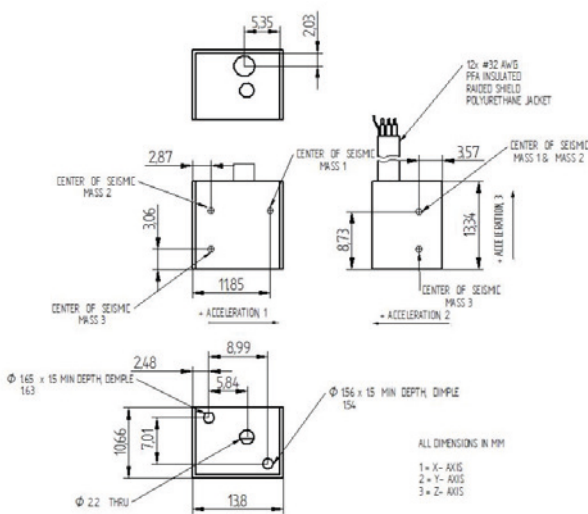
The model BST 28C is a triaxial accelerometer based on piezo resistive technology. With a four-active arm Wheatstone-Bridge (4 wire system) configuration and a damping ratio helps to connect the sensor on all data acquisition systems. The light weight and small size of the sensor makes it easy to mount it on difficult places at the car for a crash test or flatter test application.

Due to the combination of stainless steel and anodized alumin-

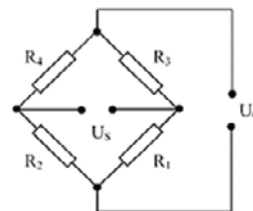
ium housing the mounting is easy with a glue. The sensor has 6 m very high rugged and flexible 4-wire per axe cable. This makes it easy to place it on difficult places fixing with a screw M2.

As an option, we supply the sensor with a Dallas ID and a Shunt resistor in the connector if possible. A calibration for the sensor is obligatory.

## DIMENSIONS



## DIAGRAM



**SPECIFICATION ACCELEROMETER** All data are typical at 23°C AND 10 VDC SUPPLY.

Range (g)	500	1,000	2,000
Sensitivity typ. (mV/g)	0.04	0.018	0.016
Frequency response (Hz)	2,750	3,500	4,000
Resonance Frequency (kHz)	>13	>20	>22
Shock limit (g)	6,000	8,000	8,000

**ELECTRICAL PERFORMANCES**

Supply voltage	3 to 10 VDC constant
Zero measurement output	< ± 25 mV type
Input Bridge Resistance	1,600 to 2,000 Ω
Output Bridge Resistance	1,600 to 2,000 Ω
Isolation	Isolated from Housing
Isolation Resistance	100 mΩ min.

**ENVIRONMENTAL PERFORMANCES**

Thermal Shift Zero	< ±0.04 % FSO (0° to 50° C)
Thermal Shift Span	-0.2 % /°C ±0.05 (0° to 50° C)
Operation Temperature	-40 °C to +100 °C
Storage Temperature	-40 °C to +120 °C
Protection Class	IP64
Non-Linearity	<1 %
Transverse sensitivity	<2 % typ. (3 % max.)
Damping ratio	0.05 typ.
Housing Material	Stainless Steel and Aluminium, anodized
Mounting	1 screw M2
Dimensions	13.65 x 10.65 x 12.7 mm
Weight Housing	17 gram without cable
Cable	integrated 12 wire, shielded, AWG 32
Cable Length	6 m
Cable Material	PUR, black
Cable Weight	13 gram per meter, Ø 3.0 mm

**CABLE CODE**

<b>x-axis</b> orange = Excitation + violet = Excitation -	blue = Signal + pink = Signal -
<b>y-axis</b> yellow = Excitation + brown = Excitation -	mint = Signal + grey = Signal -
<b>z-axis</b> red = Excitation + black = Excitation -	green = Signal + white = Signal -

**ORDER INFORMATION**

BST 28C-2000-6Z
28C = model name
2000 = Range 2,000 g
6 = 6 m Cable
Z = no connector

**OPTIONAL**

Additional Cable Length
Connector
Dallas ID
Shunt Resistor
Calibration DAkkS DIN EN ISO/IEC 17025:2018